

Penrose (R. A. F.)

Treatment of Post Partum
Hemorrhage

BY

R. A. F. PENROSE, M.D.

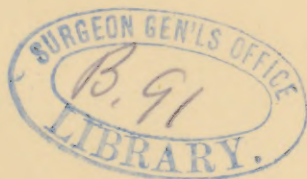
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- II. A Case of Rupture of the Perineum without Implication of the Vulva. By Dr. J. C. Reeve.
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- V. A Case of Foot and Head Presentation; Fracture of the Spine in Utero. By Dr. J. T. Johnson.
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- VII. The Hand as a Curette in Post Partum Hemorrhage. By Dr. H. P. C. Wilson.
- VIII. The Treatment of Post Partum Hemorrhage. By Dr. R. A. F. Penrose.
- IX. Dermoid Tumors of the Ovary. By Dr. W. H. Byford.
- X. A Contribution to the Study of the Treatment of the Acute Parenchymatous Nephritis of Pregnancy. By Dr. W. L. Richardson.
- XI. Alternating Anterior and Posterior Version of the Uterus. By Dr. S. C. Busey.
- XII. Remarks on Gastro-elytrotomy. By Dr. H. J. Garrigues.
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- XIV. Rectal Alimentation in the Nausea and Inanition of Pregnancy; Intestinal Inhaustion, an Important Factor and the True Solution of its Efficiency. By Dr. H. F. Campbell.
- XV. Three Cases of Rupture of the Uterus. By Dr. T. Parvin.
- XVI. On the Early Delivery of the Placenta when Previa; with the Relation of a Case of Spontaneous Detachment of the Placenta without hemorrhage. By Dr. I. E. Taylor.
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- XIX. On some Points in Connection with the Treatment of Sterility. By Dr. A. Reeves Jackson.
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THE TREATMENT OF POST PARTUM HEMORRHAGE.

BY R. A. F. PENROSE, M. D.,

Philadelphia.

THE subject of post partum hemorrhage possesses special, and, always, fresh interest to the obstetrical practitioner; and, no matter how often discussed, any suggestions which may help him in the terrible conflict which this dreadful accident implies must ever be welcome. This accident of labor differs from almost all other accidents in this respect, that the medical attendant, though inexperienced or ignorant, *must* fight it alone. Almost every other complication of labor admits of more or less delay in treatment, which delay gives time, in most cases, when necessary, to send for assistance; but this complication of post partum hemorrhage comes on so suddenly, sometimes so unexpectedly, and runs its course so rapidly, that the patient may die, or be beyond help if instant and *efficient* treatment be not given her. And yet it is in these very cases—so sudden and unexpected in their invasions, so appalling in their bloody physiognomy, so quickly and certainly fatal in their termination—it is in these very cases that prompt and intelligent treatment is invariably successful; I use the expression “invariably successful” thoughtfully, and I design it to mean all the words imply; it is in these very cases that knowledge means life, and want of knowledge, death, to the sufferer.

In much of the recent discussion on this subject, and we all know how extensive it has been, there has seemed to me, often, to have been a great want of definiteness and precision in the ideas entertained by those participating in

the controversy, as to the conditions occasioning post partum hemorrhage, and as to the real, as well as the relative, value of the various remedies urged in its treatment. This want of definiteness and precision, at times, has led writers to suggest or oppose some especial remedy or remedies, without regard to the antecedent conditions which may have caused the hemorrhage; and, consequently, has led them to suggest or oppose, at times, a remedy, perhaps, of inestimable value in its proper place, but useless or dangerous out of its proper place.

It was my lot, when a young and very inexperienced practitioner, to meet with several grave cases of post partum hemorrhage; the rough experience thus acquired led me to study the subject carefully, and the result has been a plan of treatment, which, after many years of public and private practice, has never, in my hands, known a failure. This plan of treatment I have taught for almost a quarter of a century, and I am in constant receipt of communications from former pupils telling me of its successful application in extreme cases coming under their care — indeed, in all of these years, I have received but one letter stating that the treatment had failed, and, in this case, after exhausting all the usual remedies, an electric current finally arrested the hemorrhage.

I will define post partum hemorrhage as a hemorrhage from any of the parturient structures, from the moment the child is expelled, until the organs have returned to the condition they possessed prior to fecundation, or as nearly to that condition as their possibilities admit of. Undoubtedly, the great cause of post partum hemorrhage is a failure in the uterine muscle to assume that condition of firm contraction which is its natural state after labor, and in consequence of which shrinkage the blood-vessels ramifying through the walls of the organ are practically obliterated, and thus are rendered incapable of carrying blood to the torn utero-placental orifices. But though uterine inertia is the great cause of post partum hemorrhage, there are other causes occasioning it, which must be clearly appre-

ciated in order to apply appropriate remedies. Thus, a cause sometimes of dreadful post partum hemorrhage is the partial morbid adhesion of the placenta to the uterus; here there is often the reverse of uterine inertia — the uterus may be in a condition of firm contraction; but the adherent placental mass, occupying no little space in the cavity of the organ, prevents and renders impossible that degree of shrinkage in size indispensable to the complete obliteration of the uterine blood-vessels, and hemorrhage is the inevitable result. To this class of causes might be added those cases where the hemorrhage is caused by the presence of fibroids in the walls of the uterus, or of a polypus in its cavity.

The various lacerations possible during labor form another class of causes; lacerations of the os, of the cervix, of the body of the uterus, as well as lacerations of the vagina and of the perineum; and here, also, might be included the hemorrhage caused by a ruptured thrombus.

A fourth class of causes embraces those cases where the essential shrinkage of the uterus is prevented by external abnormal peritoneal adhesions, or by a distended bladder.

A fifth class is due to diseases of the uterus, as cancer; the cancerous mass may act in several ways as a cause of post partum hemorrhage. In the first place, by its size, it may prevent the essential shrinkage, or it may so alter the character of the uterine tissue as to render it incapable of contraction, or it may greatly increase the vascular supplies to the organ.

A sixth class of causes are those which occasion great or sudden congestion of the womb, as, for example, improper exertion after labor, or powerful emotions.

Undoubtedly, however, as I have remarked, by far the most common cause of post partum hemorrhage is uterine inertia. The causes of this condition of uterine inertia are so well understood that it will be unnecessary here to discuss them. I deem the chief predisposing cause to be the idiosyncrasy of the individual. Some women have, naturally, what I may term, in a general way, a weak uterus,

in other words, a uterus which performs all its parturient functions less perfectly than is typically natural, and hence a uterus readily acted on by exciting causes which would not be felt by an organ possessing full power. We meet with analogous conditions in other parts of the economy, where some organ or set of organs presents evidences of unusual feebleness, though the general strength of the individual may be good. As I write this, I have in my mind the case of a gentleman, now in his seventy-third year. A man, apparently in perfect health, who has suffered from a feeble bladder for over forty years, during thirty of which he has been under my observation; and in all this long period he has always emptied his bladder by a catheter, yet in no other respect is there any other sign of disease or feebleness in this individual. There is no disease of the prostate, no stricture, and the sexual vigor is above the average, the man being the father of ten children. The brother of this gentleman (who was also under my professional care) died in his fifty-fifth year of a feeble heart. The idiosyncrasy of a weak uterus, then, I look upon as the great predisposing cause of that condition of flaccidity after labor which renders a hemorrhage possible. It is unnecessary to refer to plethora, or to an altered condition of the blood as additional predisposing causes, since these causes cannot occasion hemorrhage, if the uterine muscle shrink sufficiently after labor to obliterate the uterine vessels carrying blood.

The various exciting causes of this condition of uterine inertia are too well understood by us all to need discussion: the effects of a protracted, or of a too rapid labor, or of excessive distention of the uterus, by dropsy of the amnion, or by multiple gestation, most of us have seen. Indeed, the preventive treatment of post partum hemorrhage — a treatment, which will, I firmly believe, in ninety-nine cases out of one hundred, prevent it where without this preventive treatment hemorrhage would inevitably have occurred — the preventive treatment must be based on a most definite conception of all of the predisposing and exciting causes that can possibly occasion the accident.

The design of this paper, however, is not to discuss the causes or the prevention of post partum hemorrhage ; but rather, the relative value of certain remedies to be employed in its curative treatment. In considering the curative treatment, it is evident, however, that since the symptom depends on so many and such diverse conditions it must require, at different times, many and diverse remedies — remedies, too, bearing certain definite relations to each other ; in other words, a remedy which will cure one case of post partum hemorrhage, may be useless or injurious in another. We have just seen that the chief, and by far the most common, cause of post partum hemorrhage is uterine inertia. Let us now try to determine what shall be its treatment. Let me suppose a case of hemorrhage, occurring after the complete evacuation of the uterus, where the blood is escaping from the torn utero-placental orifices, because the uterine muscle refuses to shrink sufficiently to obliterate the blood-vessels, and in this way, and in this way alone, *safely* to stop the flow. The indications evidently are to make the uterus contract, and here come in those milder expedients, well known to us all, where a knowledge of the “nervi motor” functions of the uterus, so clearly and ably set forth by the late Dr. Tyler Smith, enables us, in most cases, to apply prompt and efficient remedies. Here come in the use of ergot and other internal remedies to cause uterine contraction ; abdominal friction or pressure ; the irritation of the vagina, of the os and cervix uteri, or of the cavity of the organ by the hand ; the application of cold in various ways ; the application of heat by the injection of hot water ; the excitement of reflex contractions of the uterus by the irritation of distant organs, as the mammary glands, or the stomach ; the use of nervous and cerebral stimuli, as opium, ammonia, capsicum, and oil of turpentine. I pass by all of these remedies, since I am sure their efficiency, and, what is equally important, their relative value is thoroughly appreciated by us all. And I present a case where the hemorrhage has failed to be controlled by the use of any or all of these milder ex-

pedients ; where the symptoms are most urgent, and where we realize that, if the flow continue much longer, a fatal termination is inevitable. What is to be done ? Let us fairly comprehend the condition of our patient. The uterus refuses to contract ; the many stimuli which we have employed to arouse it to activity have proved powerless. It is evident that if our milder remedies have failed, we must employ more active ones ; it is evident that if we *cannot* make the uterus contract, the woman will die. This sluggish, this inert, this paralyzed uterus must be awakened to activity by some powerful stimulant, and that instantly, or all remedies will be useless. What shall this new and powerful stimulus be ? Many have been suggested, which shall we select ? What is most desirable is a remedy that can be easily obtained, under all circumstances ; one that admits of application in the simplest and most speedy manner ; a remedy efficient as an irritant to stimulate the most sluggish and inert uterus to instant contraction, in other words, capable of speedily curing the hemorrhage ; but, at the same time, a remedy the use of which shall not be followed by any injurious or dangerous consequences. As I have just remarked, many remedies have been suggested. A remedy that can always be obtained, one that can be applied without the slightest difficulty, one that will be certain to excite sufficient irritation to cause the most inert organ instantly to contract, is the actual cautery. A common poker would answer, a horn or bone speculum would protect the walls of the vagina, while the irritation caused by the application of the heated metal to the inner surface of the uterus, would, I have no doubt, though I have never resorted to this remedy, occasion an instant shrinking of the most relaxed uterus ever presented to the anxious practitioner. And yet this remedy, so certain to excite intense uterine irritation, so certain to cure the most obstinate hemorrhage, must not be used, not because it is not a good cure for post partum hemorrhage, but because the woman would, in all probability, die from its subsequent effects. Here, then, is a most efficient remedy ; but, unfortunately, a most dangerous one.

The next remedy I will discuss is the injection of the solutions of the persalts of iron into the cavity of the uterus. Of the efficiency of this remedy there is no doubt. The irritation it excites causes instant shrinking of the uterus, while the potent styptic effect of the astringent solution on the lining membrane of the bleeding womb, and on the gaping utero-placental orifices, is also valuable in arresting the flow. The application then of the persalts of iron in cases of post partum hemorrhage, like the application of the red-hot poker, is certain to cure the hemorrhage; unfortunately, however, it sometimes resembles the red-hot poker in its subsequent effects, and the experience of the last few years, I think, has proved that women will die, though they did not lose a teaspoonful of blood after the application of the styptic solution—that women will die, sometimes, solely in consequence of the use of the persalts of iron as a cure for post partum hemorrhage.

In endeavoring, however, justly to estimate the value of the ferric salts as remedies for post partum hemorrhage, we must bear in mind that their use is sometimes as harmless as it is potent, and therefore, that there are certain kinds of cases, to which I shall presently refer, where they are fairly to be looked upon as the remedies to save the life of the patient. Injections of tincture of iodine have been urged as the certain remedy for post partum hemorrhage. Undoubtedly, the tincture of iodine is excellent in uterine inertia; its use excites sufficient irritation to produce instant shrinking of the relaxed uterus, and, at the same time, the iodine does not occasion the formation of those hard and adhering coagula which have proved so dangerous after the injection of the solution of the persalts of iron; which have proved, as I firmly believe, the cause of death, in many cases from embolism, from septicemia, or from the development of inflammatory affections of the uterus, or of the adjoining structures. The tincture of iodine is also admirable as an antiseptic. Though I have not made use of the tincture of iodine, I nevertheless esteem it, and might, perhaps, resort to it had the remedy I

am about to suggest ever failed me. A difficulty, however, attaches to the use of this remedy in any case of sudden and unexpected emergency—and that is, that unless the medical attendant should have it with him, his patient may die from the want of it, or some other remedy must be applied.

This brings me to the discussion of the agent to which I wish to call the attention of the Fellows of this Society as *the* remedy for post partum hemorrhage, occurring under the conditions I have laid down, and in cases when the ordinary remedies of friction, pressure, ergot, cold, etc., etc., have failed. This remedy is common vinegar. I claim no originality in suggesting it. I will merely state that I have used it, alone, as my last resort, both in hospital and private practice, in many (apparently desperate) cases of post partum hemorrhage, and invariably with successful results. I have taught the use of vinegar to my classes since 1854, and though I am in constant receipt of reports of cases from my former pupils in which they have relied on vinegar—often, in seemingly hopeless conditions—in all these years I have received the report of but one case where the remedy failed to check the hemorrhage. In this instance, my friend happened to have access to a galvanic battery, and the electrical current at last proved the needed stimulant to secure uterine contraction.

Vinegar I have found not only a certain remedy for post partum hemorrhage, but a remedy as safe as it is certain to cure. In the many very bad cases where I have used it the hemorrhage was always arrested, and in but one instance did the woman subsequently die, and in this case neither I, nor the immediate attendant (my friend Prof. John Neill) had any reason to attribute the woman's death (neither did we) to the vinegar I had used to check a most appalling case of flooding. In the many reports which I have received from my former pupils on this subject, I have yet received none where any unfortunate results have followed the application of vinegar.

Vinegar presents the following advantages as an inval-

able remedy in the treatment of obstinate cases of post partum hemorrhage, where the difficulty to be overcome is a want of shrinkage in the uterine muscle. In the first place, it can always be easily obtained — every household even the humblest, having a vinegar cruet. In the second place, it can be applied instantly, and without any apparatus. In the third place, it always cures the hemorrhage, or rather, I should say, it has never failed to do so in my practice. It is sufficiently irritating to excite the most benumbed and sluggish uterus to contract, while, at the same time, it is not so irritating that its subsequent effects are injurious. Fourthly, it is an admirable antiseptic. Professor Zweifel, of Erlangen, in his recent paper on the prevention of puerperal fever, considers vinegar an excellent substitute for carbolic or salicylic acids.¹ Fifthly, it acts on the lining membrane of the uterus, and on the gaping orifices of the torn utero-placental vessels as a valuable astringent. Vinegar I suggest, then, to the Fellows of this Society, as a most valuable remedy in post partum hemorrhage depending on inertia, possessing the advantage of the solutions of the persalts of iron, of the tincture of iodine, and, may I not add, even also all the advantages of the actual cautery; while its use is attended by none of the difficulties, and followed by none of the dangers that attach to these remedies.

I have just stated that vinegar may be applied instantly and without apparatus — perhaps I should mention precisely my method of using it. I pour a few tablespoonfuls into a vessel, dip into it some clean rag or a clean pocket handkerchief. I then carry the saturated rag with my hand into the cavity of the uterus and squeeze it; the effect of the vinegar flowing over the sides of the cavity of the uterus and through the vagina is magical. The relaxed and flabby uterine muscle instantly responds. The organ at once assumes, what I will term, its gizzard-like feel, shrinking down upon and compressing the operating hand, and in the vast majority of cases all hemorrhage ceases instantly; should

¹ *Monthly Abstract of Medical Science*, June, 1878.

one application of vinegar fail to secure sufficient contraction, the hand can be withdrawn, and a second or even a third application can be made, until the uterus shall contract sufficiently to stop the flow of blood.

Had I time, it would have been desirable to discuss this interesting subject at greater length and more completely. Thus it may be asked, suppose you should meet with a case of hemorrhage where vinegar failed to excite sufficient uterine irritation, and, consequently failed to arrest the flooding — what should be done? My reply is, that, while such a case is supposable, it is extremely improbable. *I have never* met with one, and but one has been reported to me. My treatment, however, in a case where vinegar failed, would be at once to resort to the application of the solution of the persalts of iron. I should do so too with confidence that the remedy would stop the hemorrhage, but, at the same time, I should consider my patient placed in great additional danger by the use of my cure, and I would employ it only on the ground that desperate diseases justify the employment of heroic measures. If this view be accepted, we are to consider the persalts of iron as the last and extreme remedy to be resorted to in case of flooding; never to be used save in those cases of uterine inertia where the simpler and safer remedy of vinegar has failed; and, inasmuch as vinegar seldom or never fails to cure uterine inertia, the persalts of iron are seldom or never to be employed in its treatment.

It would have been satisfactory to complete this subject; and to have discussed the treatment not merely of hemorrhage when caused by uterine inertia, but when due to some of the other causes to which I have referred. My time, however, has expired. When post partum hemorrhage is caused by other conditions, necessarily other remedies are demanded. Thus in retained or adherent placenta, the removal of the placental mass is essential. In cases of hemorrhage caused by uterine fibroids or polypi, I have found vinegar entirely satisfactory. I have had similar good results when I have used vinegar to check a flooding follow-

ing a labor complicated by extensive cancerous degeneration. In the hemorrhage due to lacerations, styptics, ligatures, compression at times are useful, and, in such kinds of cases, the ferric salts may be indispensable. In the hemorrhage caused by over-exertion or emotion, I have found opium, revulsives, ergot, and the local application of astringents the most efficient agents.

REMARKS OF DR. PENROSE, CLOSING THE DISCUSSION.

DR. PENROSE, of Philadelphia. — There is but little need for me to conclude this discussion, since *my* paper can scarcely be said to have been discussed. Gentlemen have described the treatment of post partum hemorrhage as we have it in all our school text-books, and as we teach it to our students. My paper was written to be read before a learned body of gynecologists, and I should have deemed it almost an insult to have told even the youngest member of our Society what I teach my students every winter, “that the uterus must be emptied of clots,” “that valuable stimuli to contraction, was the introduction of the hand into the cavity of the organ;” “external abdominal compression;” “use of cold;” “use of hot water;” etc., etc. When gentlemen tell us that they employ such remedies, they refer to remedies that every medical school boy and woman midwife knows and uses.

Dr. Thomas has remarked that he believes “vinegar acts merely as an uterine irritant,” “that it does not exert any specific influence,” and that “many other substances doubtless would answer as well,” as, for example, “alcohol and water.” Now, all I claimed for vinegar, in my paper, was that it was a *safe irritant*, though I believe its curative action consists not solely in its irritating properties. Dr. White, in his remarks, recognizes the value of vinegar in the kind of cases for which I suggest it, and tells us that it acts admirably as a styptic in controlling the hemorrhage from cancer of the uterus, and, after operations upon the organ, and that he has used it for a long time for these purposes.

We all know the value of acetic acid and many of the acetates in causing contraction of the blood-vessels. If we apply vinegar to the lips we know one of the effects is to blanch the surface. I once arrested a hemorrhage from the bladder, which had defied all treatment, simply by applying cloths wet with vinegar over the

lower part of the man's abdomen. Dr. Thomas has suggested that "alcohol and water" would answer as well as vinegar. I have little doubt that alcohol and water would prove a safe uterine stimulant, but I do not believe it would be comparable in efficiency to vinegar. Moreover, alcohol and water sometimes cannot be obtained. This summer I spent several weeks in the State of Maine, where the "liquor law" is rigidly enforced. Upon repeated occasions I was in great need of "alcohol and water," perhaps I should say here that it was not, however, to treat cases of flooding, but I was not able to obtain a single drop. In the State of Maine, then, a woman might die of post partum hemorrhage if the remedy to cure her had to be "alcohol and water." I observed in the hotel *no lack of vinegar*. One gentleman has remarked, that, if empty, the uterus *will* contract. Now I imagine that most of us have met with cases where the uterus *was* empty, and where it *was kept empty*, but where it did not contract, but continued to bleed; and it is in precisely such very cases that I deem vinegar a most precious remedy. Dr. Thomas and Dr. Barker have spoken of the *preventive* treatment of post partum hemorrhage. I am completely in accord with them. Since, I remarked in my paper that "ninety-nine, out of every one hundred cases of hemorrhage," might have been prevented by adopting measures, appropriate to the individual, either during gestation or labor. Dr. Chadwick has called our attention to the value of the hypodermic use of sulphuric ether. I am sure the suggestion is excellent, and the remedy used in this way is new. I have referred in my paper to the effects of "cerebral and nervous stimuli" in causing uterine contractions in cases of inertia due to nervous prostration.

In fine, my paper was intended to call the attention of the Fellows of this Society to the use of *vinegar* in cases of post partum hemorrhage, *depending on uterine inertia*, and where the *usual* remedies, known to every well-educated practitioner of medicine, had failed; and where, unless some remedy could be found to act speedily, the woman would die. Under such circumstances, among *many irritants*, vinegar will be recognized as presenting the advantages I have claimed for it. A remedy easily to be obtained, readily applied, always, in my experience, promptly causing the essential uterine contraction, and never, as far as my observation goes, followed by any bad consequences; in addition it is an excellent antiseptic.

